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PRELIMINARY PROGRAM

Forty-Ninth Annual Meeting

Florida State Horticultural Society

Fourth Annual Meeting Krome Memorial Institute

DeLand, Florida, May 5, 6, 7, 1936

Tuesday Evening—May 5, 8:00 P. M.

Music.

Call to Order—Pres. John S. Taylor, Largo.

Invocation.

Address of Welcome.

Response to Address of Welcome.
Music.

President's Annual Address.

Address—Dr. John Gifford, University of Miami, Coral Gables.
Announcements.

Wednesday, May 6, 9:30 A. M.

Conference on Major Plant Food Elements for Citrus, lead by Dr. R. M. Barnette, Gainesville.

Address—"A Review of the Secondary Plant Food Elements for Citrus", Frank Holland, Winter Haven.

Address—"Some Field Tests with Magnesium Sources", W. L. Tait, Davenport.

Address—"Relation of Foliage to Tree Maintenance and Fruit Production in Citrus" Dr. B. R. Fudge, Lake Alfred.

Address—"Different Types of Yellowing in Citrus Trees and Their Treatment", Dr. A. F. Camp, Lake Alfred.

Committee Announcements.

Wednesday, May 6, 2:00 P. M.

Address—"The Better Fruit Spray and Dust Program of the Florida Citrus Commission", E. W. Hartt, Avon Park, E. F. DeBusk, Gainesville.

Address—"Some New Aspects on Gummosis and Psorosis in Citrus", Dr. A. S. Rhoads, Cocoa.

Address—"The Establishment and Propagation of the Chinese Lady Beetle in the Citrus Grove", Dr. J. R. Watson, Gainesville.

Address—"Fruit Quality From the Standpoint of Fertilizers", K. E. Bragdon, Winter Haven.

Address—"Citrus Fruit Buds and Some Factors Influencing Their Differentiation", C. E. Abbott, Gainesville.

Business Session.

Wednesday, May 6, 8:00 P. M.

Address—"The Home Market for Florida Citrus", Miss Isabelle Thurstby, Tallahassee.

Address—"The Tangerine Market", Howard Phillips, Orlando.

Address—"Citrus in Florida and California (A Comparison)", H. Harold Hume, Gainesville.

Address—"Four Years of Citrus

Products Research in Florida", H. W. Von Loesicke, Winter Haven.

Business Session.

Thursday, May 7, 9:30 A. M.

Address—"The Florida Citrus Commission and Its Work", C. E. Stewart, DeLand.

Address—"Advertising and Publicity by the Florida Citrus Commission", Marvin Walker, Lakeland.

Address—"Factors in the Maintenance of Markets", A. W. McKay, Orlando.

Address—"Local Use of Citrus Fruit Juices in Citrus Advertising", B. L. Hamner, Tampa.

Address—"The Value of Exhibits in Advertising Florida and Its Fruits", E. W. Brown, DeLand.

Business Session.

Thursday, May 7, 2:00 P. M.

Address—"The Fruit Frost Service", E. S. Ellison, Lakeland.

Address—"Our Wobbly Rate Structure", H. C. Case, Ft. Myers.

Address—"The Plight of Grapefruit", W. C. Daniells, Eustis.

Address—"The Situation in Reference to the Use of Color-Add on Citrus Fruits", (To be Announced).

(Continued on page 16)

Citrus Production Costs And Returns For 4 Years

BY R. H. HOWARD, ECONOMIST,
FLORIDA AGRICULTURAL EXTENSION SERVICE

A study of citrus cost of production and returns has been carried on by the Agricultural Extension Service since the fall of 1930. The study has been based upon records furnished by citrus growers cooperating with County Agents and other Extension Workers. The results of those records obtained for 1930-31, 1931-32 and 1932-33 have been released as yearly summaries. There will be another year's summary for the crop year 1933-34 available about April 15th, covering 263 grove records.

The crop year basis of handling the citrus accounts, includes the fruit receipts and expenses incurred principally in producing the same crop. To illustrate, the costs incurred from September 1, 1933 to August 31, 1934 produced primarily the crop of fruit marketed from October, 1934 to June, 1935. Thus, this method of handling the accounts is called a crop year basis.

First, let us briefly review the costs and returns records on 55 groves since this project began. (Table I.) These 55 groves on which the cooperators have furnished their records over a period of years averaged approximately 18.5 acres per grove. All groves were over 10 years of age at the beginning in 1930-31, averaging 14 years at that time; and by 1934-35 the average age was 18 years. Of the total 1,011.5 acres in the groves, approximately 71 percent were oranges, 25 percent grapefruit, and 4 percent tangerines. These growers have furnished their costs for five years and returns for four of the crops produced. All returns for the fifth crop year are not yet available.

Naturally, total costs per acre excluding interest and owner's supervision have varied during the 5-year period. However, the trend of cost from 1930-31 to 1932-33 was decidedly downward; but there was a slight increase in the total cost each year since 1932-33. The average cost per acre excluding interest and owner's supervision for the crop year 1930-31 was \$83.99, and by 1932-33 the lowest average cost per acre had decreased to \$64.51. By 1934-35, the

average cost per acre had increased to \$67.32 for the same 55 groves. The percentage increase in cost is spray and dust material was greatest. There was a slight increase in cost for the materials used but most of the increase in cost was due to greater quantities used. This would seem to indicate that these growers have been attempting to produce better quality of fruit and thereby obtain higher prices and greater returns from their investment.

The trend of the cost per acre for fertilizer was also downward for the first 3 years, 1930-31 to 1932-33, and a slight increase each year for 1933-34 and 1934-35. The reduction in cost per acre from 1930-31 to 1932-33 for fertilizer was largely due to more economical practices and lower prices; while the slight increase in cost each year since 1932-33 was caused by more intensive use of soil amendment materials. The total quantity of available plant food fertilizer applied on these 55 groves over the 5-year period was not materially changed. However, there was a trend toward the use of more units of ammonia and less units of phosphoric acid and potash. The reduction in phosphoric acid was greater than for potash.

The net returns for interest on capital invested in the groves and owner's supervision, varied from a loss of \$.89 per acre for the crop year 1931-32 to a return of \$50.97 per acre in 1933-34. The average cost of production on a per box basis also varied widely from 1930-31 to 1933-34. The lowest average cost of production per box was in 1933-34 which amounted to \$.36. This low cost of production figure was largely due to the largest yield obtained per acre of the four crop years. The greatest cost per box during the 4 years period occurred in 1930-31, which amounted to \$.57. This may be explained in part by a comparatively low yield per acre as well as the greatest cost per acre. However, the net returns per box for interest on capital invested in the groves and owner's supervision was greatest for the 1930-31 crop year, averaging \$.34 per box. The average price received on the

tree of \$.91 for fruit sold was the principal factor affecting a higher net return for that year. Thus, it may be noted that yield and price received were the most important factors affecting total cost per box and net returns per acre and per box.

Assuming an average valuation of \$700 per acre for the 55 groves and the average of \$31.99 net returns per acre over the 4-year period, this would give an average return of 4.6 percent for interest on the appraised valuation and owner's supervision.

Second, let us briefly discuss some of the other important items as revealed by all citrus grove records furnished since the project began.

In a study of the relationship of age to costs and returns for 715 grove records, covering 26,401 acres, over a 4-year period, it was quite apparent that as groves become older, costs and returns increased. However, on the average, the net returns increased proportionately faster than costs on a per acre basis. The average cost per box decreased as the groves become older. The age at which grove costs and returns per acre become maximum could not be determined as there were a limited number of grove records for ages above 20 years. However, the greatest proportionate increase in returns per acre and per box occurred on those groves over 20 years old.

The relationship of age to yield harvested per tree also indicated, according to the records, that the yield per tree increased with the age up to 20 year old trees. There was an inadequate number of grove records on which to base yield for ages over 20 years. However, there are indications from the few grove records furnished on groves over 20 years old that yield per tree continues to increase. Based upon approximately one-half million grapefruit trees between 5 and 20 years old, it was noted that the increase in yield was at the rate of .3 box per tree, while the orange trees, representing one million trees, increased at about .15 box per tree for each additional year of age up to 20 years.

Based upon boxes sold and amount

received for fruit, according to records furnished by the cooperators over the past 5 marketing years 1930-31 to 1934-35 inclusive, the weighted average price for all Valencia oranges was \$.97 per box. These data covered the sale of 661,136 boxes of Valencias. Parson Brown oranges averaged \$.82 per box, which represented the sale of 64,383 boxes; pineapple oranges averaged \$.78 per box for the sale of 275,594 boxes; tangerines averaged \$.50 per box for 154,221 boxes sold; while the weighted average price for all grapefruit over the 5-year period was \$.44 per box representing the sale of 1,057,502 boxes.

COST OF PRODUCING GRAPEFRUIT: Most Florida citrus groves are mixed with two or more varieties. Of all the 1,075 grove records furnished from 1930-31 to 1933-34, only 31 of these consisted of more than 90 percent grapefruit trees. Nine of these groves had 100 percent grapefruit trees, and the average for the 31 groves was 94 percent.

The total costs on these grapefruit groves ranged from \$43.05 to \$158.15 per acre. There were 9 groves on which the cost per acre was below \$60; six between \$61 and \$80; 11 between \$81 and \$110; and 5 groves on which the total cost was above \$110 per acre excluding interest on capital invested in the grove and owner's supervision. There was also a wide variation in the cost of producing grapefruit per box, ranging from \$.13 to \$3.71. However, the average cost of production covering 107,920 boxes, was \$.28 per box. The yield harvested per acre was the most important single factor affecting total costs per box.

COST OF PRODUCING ORANGES: There were 146 grove records obtained for the four crop years 1930-31 to 1933-34 which consisted of not less than 95 percent orange trees, with an average of 97.7 percent.

Of the 146 orange grove records summarized, the costs on 32 were below \$41 per acre; 70 were between \$41 and \$70 per acre; 33 were between \$71 and \$100; and 11 on which the costs were above \$100 per acre. The average cost for all orange groves on which records were furnished, was \$63.38 per acre.

The average cost of producing oranges for the 146 orange groves representing 2,651 acres was \$.46 per box. However, the average cost per box was less than \$.30 in 41 of the 146 orange groves due to the fact that the average yield per tree on these low cost groves was decidedly greater than for the other orange

THE CITRUS INDUSTRY

Fertilizer Men

To Meet in June

The twelfth annual convention of The National Fertilizer Association will be held at White Sulphur Springs, W. Va., June 8, 9, and 10, according to an announcement made by Charles J. Brand, Executive Secretary and Treasurer.

The 1935 convention was held shortly after the Supreme Court decided the Schechter case invalidating all NRA codes. At that convention the industry began to develop a plan for self-government which would provide, through voluntary action, for eliminating unethical and disastrous practices.

Following the convention last June, meetings were held throughout the country as a result of which a group of fair trade practice rules

groves.

A more detailed report of the cost and returns study on on Florida citrus groves may be obtained after

was prepared and submitted to the Federal Trade Commission for approval.

"It has been our constant aim," said Mr. Brand, "to devise a plan which would be fair and just to producers, distributors, and consumers. It has been because of this desire to formulate a program which would assure to the purchasing public quality goods at reasonable prices and at the same time would make possible reasonable compensation to distributors for their services and only reasonable profits to producers who operate efficiently that such a great amount of time and thought have been devoted to the formulation of the plan."

It is expected that the convention program this year will be devoted very largely to a further discussion of industry planning and to the formulation of definite methods of procedure.

about April 15th from County Agents in the citrus areas or by writing to the Agricultural Extension Service, University of Florida, at Gainesville.

Table 1. Summary of Costs and Returns for 55 Florida Groves Over 10 Years of Age—Crop Years 1930-31 to 1934-35

Items	Years				
	1930-31	1931-32	1932-33	1933-34	1934-35*
Boxes Harvested Per Acre	148	163	129	181	
Boxes Produced Per Acre (Estimate)			137	204	
Cost Per Acre:					
Labor, Power & Equipment	\$32.12	\$31.10	\$26.51	\$26.70	\$27.58
Fertilizer & Amendments	34.66	29.94	24.00	26.02	26.28
Spray & Dust Materials	4.05	3.60	4.53	4.66	5.47
Taxes	8.55	7.94	7.08	6.70	6.93
Miscellaneous	4.61	2.60	2.39	1.68	1.06
Total Cost Per Acre Excluding Int. & Owner's Supervision	\$83.99	\$75.18	\$64.51	\$65.76	\$67.32
Total Returns Per Acre	134.91	74.29	91.46	116.73	
Net Returns for Interest & Owner's Supervision	50.92	-.89	26.95	50.97	
Total Cost Per Box Excluding Int. & Owner's Supervision	\$.57	\$.46	\$.50	\$.36	
Average Price Received	.91	.455	.71	.64	
Net Returns Per Box for Int. & Owner's Supervision	.34	-.005	.21	.28	

* All returns not yet available.

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BETTER FRUIT CAMPAIGN MAKES GOOD PROGRESS

Continuing its campaign for the production of better fruit, the Florida Citrus Commission, in co-operation with Federal and State agricultural agencies, has issued a spray and dust schedule for the season of 1936-37. This schedule, or rather schedules, for four different schedules are presented to meet the varying conditions of different types of groves, is now available to growers and is being distributed at meetings throughout the citrus producing sections of the state, where the plans, purposes and workings of the Better Fruit Program are being explained.

The proper use and application of copper sprays, sulphur sprays and dusts, oil sprays and zinc sprays are fully explained in footnotes accompanying the schedules, together with special recommendations for the control of rust mites, six-spotted mites, red spiders, aphids and other citrus pests.

On the schedule charts and at the meetings of growers, emphasis is placed upon the necessity for selecting the schedule best applicable to the individual grove and then sticking to it.

At the meetings so far held, the attendance of growers has been most gratifying and the interest manifested has been most encouraging, an interest which indicates that the growers are fully alive to the need for improving not only the quality but the appearance of their fruit.

The spray and dust schedules, together with the accompanying footnotes, represent the last word in authoritative research of the Florida Citrus Commission, the Florida Citrus Experiment Station, Florida Agricultural Extension Service, United States Department of Agriculture, Florida State Plant Board, Florida Horticultural Society, professional consultants and commercial firms interested in citrus culture.

Growers who have not received a copy of the charts should apply to the Florida Citrus Commission at Lakeland for a copy, and having received it, they should follow the advice of the Commission: "Select the schedule most applicable to your crop and stick to it." By doing this, Florida growers will produce better fruit, better appearing fruit, and will reap a much bet-

ter harvest of profits when the crop is marketed next winter and spring.

REMOVING A CITRUS MENACE

One of the accomplishments of the Federal relief agencies which is of particular moment to citrus growers is the work of removing citrus trees affected with citrus canker, most dreaded of all citrus pests, in the extreme southeastern section of Texas, around Houston, Galveston and Beaumont.

In the section referred to, which is not in the commercial citrus belt of Texas, some 6,250,000 non-productive trees of all kinds on 10,000 properties in ten counties of Texas and 13 parishes in Louisiana had been removed up to the end of March. Among these trees were 1400 canker affected trees on 41 properties.

Florida citrus growers know the dire threat of citrus canker, having had first hand knowledge of its ravages years ago. Between the years 1914 and 1928 this disease was eradicated by the destruction of every affected tree in all the Gulf Coast region, except a non-commercial area in Texas and Louisiana. The present campaign, being carried on with Federal relief funds under direction of Lee A. Strong seems destined to remove the last threat of possible re-infestation of citrus trees by this dreaded disease.

In addition to the work above mentioned, relief workers have removed millions of diseased and abandoned citrus, peach and other non-productive fruit trees which constituted a potential menace to healthy trees growing in the same areas. This certainly has been a worthwhile effort and one which means much to the fruit growers of the nation.

NOT ALONE IN OUR TROUBLES

Florida citrus growers are not alone in their troubles, although some of us at times are inclined to think that our problems are greater than those of others.

A perusal of the citrus publications of Palestine and South Africa discloses that the growers there are discussing the problems of standardized boxes, brighter fruit, transportation rates, tariff duties, unregulated competition and other subjects with which we of Florida are familiar.

Except for the names, the articles appearing in these foreign citrus publications might well have been written about conditions in Florida or Texas or California. From which it would appear that our troubles are not greater than others, nor even of a different nature, but that they merely appear so because they are nearer home.

The law of supply and demand still holds good. When we flood the markets with citrus fruits, prices go down; when we hold back shipments, prices go up. But it takes Federal control to make us take advantage of this knowledge.

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Federal Court Upholds Marketing Agreement

CALIFORNIA JUDGE GRANTS STRONG DECISION
ON CONSTITUTIONALITY OF STATUTE

United States District Judge Leon R. Yankwich on April 4 granted the United States government an interlocutory injunction against Hugh Edwards, California shipper of citrus fruits, says the California Citrograph. The effect of the decision, which enjoins Edwards from shipping oranges or grapefruit out of California without first obtaining an allotment from the California-Arizona Orange Grapefruit Agency, is to prevent the demoralization of the marketing agreement program, the court said.

This federal complaint, filed March 10, and sworn to at Washington, D. C., by Porter R. Taylor, chief of the General Crops Section, AAA, is considered an important test case. United States Attorney Pierson M. Hall personally, and very ably, argued the matter before Judge Yankwich.

The complaint alleged that in 1933, the Secretary of Agriculture had entered into a marketing agreement, approved by more than 80 per cent of the producers of oranges and grapefruit in California and Arizona.

A new order regulating the handling of oranges and grapefruit in interstate commerce was made effective on January 13, 1936. On the basis of it, a quota was established allotting the quantity of oranges to be shipped from these states during various weekly periods. An allotment was also made to various persons engaged in handling the products. The defendant Edwards has declined to apply for a quota and has shipped out of the state several carloads of oranges in violation of the quota.

In the hearing there was no dispute as to the facts. Edwards contended, however, that the marketing agreement was not necessary and that his shipment did not demoralize the market. He then attacked the legality of the order, claiming that it is unconstitutional. The attack on the constitutionality was two-fold. He first contended that the Hoosac Mills case invalidated the entire Agricultural Adjustment Act. Judge Yankwich's opinion denies this contention.

The opinion says that the marketing control portion is separate and distinct from the processing tax, with

the validity of which that opinion concerned itself, adding:

"For they constitute a complete scheme which can be given effect after the processing and the control-of-production features of the Act are completely eliminated. And this fact has always been considered a determinant test in saving the valid portions of a statute from those that were valid."

The opinion takes up the next argument urged against the constitutionality of the Act. It was argued on behalf of Edwards that the Act is an interference with local conditions and, therefore, just as objectionable as the processing tax which the Supreme Court struck down. Answering this contention, the opinion says:

"The regulation of interstate commerce here is not a regulation of production. It does not aim to control the amount of commodities to be produced in a particular state. It merely regulates the quantity to be shipped in interstate commerce.

"Farm products not shipped in interstate commerce may be used or sold locally or transformed into other commodities. At best, the result to be attained is incidental to the exercise of the power. And where the power exists, the fact that the manner of its exercise may result in an incidental regulation of intrastate activity, has not led courts to deny validity to its exercise.

"We conclude that if the power can be used to achieve beneficial results which may be called of a moral character, such as the exclusion of narcotics, liquors, lottery tickets, prize-fight films, immoral persons, fruits and grain below a certain standard, from interstate commerce, when their use is incidental to the plenary control of the Congress over commerce between the states, an Act which seeks to limit the shipment of the products of agriculture should not be denied validity upon the ground that it may indirectly affect their production. After all, we are living in a realistic world. And while 'man doth not live by bread alone,' economic considerations in aid of a group which has been a dominant fac-

tor in our national life from the very beginning of our nation's existence, should not be considered so evil as to contaminate the proper exercise by the Congress of its plenary control over commerce between the states.

"If the indirect effect were controlling, few of the valid exercises of the taxing and commerce clauses of the Constitution could stand.

"In practically every instance it can be pointed out (and it was, when they were attacked), that the commerce power was used to affect indirectly the conduct of persons and to achieve through its exercise beneficial local results. In many instances, the exercise of the commerce power is the only way to achieve a desired result. The Supreme Court has said so repeatedly."

The opinion concludes:

"The power to regulate commerce implies the right to exercise it to achieve beneficial results in the marketing of agricultural products."

The opinion also dismisses the contention that the Act contains an unlawful delegation of power. After stating the conditions under which the Congress may constitutionally declare a definite policy and leave to others the means of applying it or carrying it into effect, the opinion concludes that the marketing provisions come within such lawful delegation of power. The opinion says:

"It is the Act of Congress and not the act of the Secretary of Agriculture which primarily results in control of the market of agricultural products. The Secretary of Agriculture merely fills in the details within the framework of the declared legislative purpose. This is not delegation of legislative power."

NEW AGENT IN BAKER COUNTY

County Agent work is resumed in Baker County after a lapse of 7½ years with the appointment of Mabry D. Futch, who began work April 1, it is announced by A. P. Spencer, vice-director of the State Agricultural Extension Service. Mr. Futch is a graduate of the University of Florida, class of 1935, and is a native of Alachua County.

The Reciprocal Trade Agreements With Cuba And Canada

And Their Probable Effects On Florida Agriculture

C. V. Noble

In June, 1934, Congress passed the Trade Agreement Act authorizing the President to negotiate reciprocal trade agreements with other nations in order that our world-wide trade might be enlarged. This Act does not authorize the President to reduce rates from the 1930 tariff level by more than 50 percent, nor to transfer any article from the dutiable to the free list. Since the passage of the Act, the President has negotiated trade agreements with eleven countries, most of which are now in effect or will go into effect in a short time. These eleven countries are: Cuba, Sweden, Belgo-Luxemburg Economic Union, Haiti, Switzerland, Brazil, Colombia, Honduras, Canada, The Netherlands, and Nicaragua. The agreement with Cuba was the first to be negotiated and became effective September 3, 1934. None of the other agreements have been in effect a year and the majority of them, if in effect, have become so since the beginning of the present year.

Since the Cuban and the Canadian agreements are of particular interest to Florida agriculture, the brief time at my disposal will be confined to these two agreements. Let us begin with a discussion of the Cuban agreement.

As has been stated, the Cuban agreement went into effect on September 3, 1934. From the standpoint of stimulating trade for the nation as a whole, there is little question of its success. During the first twelve months of its operation our imports from Cuba, exclusive of sugar which has a fixed quota, increased 43 percent in value, and our exports to Cuba increased 59 percent in value over our imports and exports of the preceding twelve months. What may be good business for the country as a whole, however, may not affect all areas equitably. This is undoubtedly true in regard to the Cuban agreement as it affects Florida agriculture, especially some of its most important winter vegetable crops. The United States granted tariff reductions of 25

percent to 50 percent from the old rates on eight fresh vegetables for three to six months of the year. Two of the vegetable crops that received tariff reductions, namely, okra and squash, are relatively unimportant Florida crops; two other crops which are important in Florida, namely, Irish potatoes and green beans, have been imported in relatively small quantities from Cuba and no appreciable increases in these imports have occurred since the agreement went into effect. The remaining four vegetable crops, namely, cucumbers, eggplant, green peppers and tomatoes, present a different picture and will be discussed briefly.

Cucumbers

The tariff rate on cucumbers from Cuba was reduced 50 percent for the three months from December to February, inclusive. During these three months in the 1933-34 season Florida shipped 88 carloads of cucumbers and 45 carlots were exported to our markets from Cuba during the same period. During these same months in 1934-35, after the agreement had become effective, Florida shipped only 64 cars and the imports from Cuba had risen to 63 cars. For the present season of 1935-36, the Florida shipments during the months of reduced tariff had decreased to 40 cars and the Cuban imports had increased to 93 cars. In other words the competitive situation with cucumbers has been reversed from 1933-34 with Cuba in the lead.

Eggplant

The tariff rate on eggplant from Cuba was reduced 50 percent for the four months from December to March, inclusive. For many years before the agreement went into effect Cuba exported more eggplant to this country during these four months than Florida shipped. In 1933-34 the Florida shipments during these four months were 45 cars; the imports from Cuba amounted to 111 cars. In 1934-35 Florida shipped only 25 cars during the same period, whereas the imports from Cuba had increased to

165 cars. The current tariff reduction season is not yet complete, but present indications are that Cuban competition will make a further gain.

Green Peppers

There was a reduction of 25 percent in the tariff rate on green peppers from Cuba for the four months from January to April, inclusive. Imports of peppers from Cuba during these four months amounted to only 66 cars in 1933-34, compared with 712 cars shipped from Florida during the same period. Cuban imports had increased in this month-month period of 1934-35 to 185 cars, and shipments from Florida had decreased to 585 cars. The present season indicates that the same trend will continue.

Tomatoes

The tariff reduction on tomatoes from Cuba was 25 percent for the three months from December to February, inclusive. During these three months in 1933-34 Florida shipped 2132 cars of tomatoes, and Cuba exported to our markets 786 cars. In the same months of 1934-35 Florida shipped only 415 cars, whereas Cuba's exports amounted to 1286 cars. For the current season of 1935-36 Florida's shipments have increased to 938 cars, and Cuba's exports have also increased to 1554 cars.

It is not implied that the sole cause of this unfavorable competitive situation for the past two seasons between Florida and Cuba is the reduced tariff rates. Weather conditions and other factors have played their part. However, tariff reductions are perhaps the principal cause.

Let us now examine briefly the Canadian agreement and its probable effect upon Florida agriculture. Since this agreement did not become effective until January 1, 1936, little definite data are as yet available for making comparisons with pre-agreement periods. There is no doubt, however, of the beneficial effects of this agreement on Florida agriculture for the following reasons:

Canada is the most important ex-

port outlet for Florida citrus fruits. Under the new agreement, the tariff on grapefruit has been reduced to one-half cent per pound, or 50 percent from the former rate. Oranges have been placed on the free list for four of Florida's heaviest shipping months, January to April, inclusive. Other important Florida fruits and nuts receiving special concessions were:

Strawberries reduced to 15 percent ad valorem, or 25 percent of the old rate.

Avocados were placed on the free list.

Pecans were reduced to one cent per pound, or 50 percent of the old rate.

A material reduction was also made in tariff rates on important Florida vegetables, the principal ones being:

Sweet potatoes, eggplant, and okra were placed on the free list.

Green beans, cabbage, celery, cucumbers, lettuce, green peas, tomatoes and green peppers now carry a 15 percent ad valorem tariff, or a 50 percent reduction from the old rates.

In addition to the specific lowering of tariff rates, Canada has also agreed to change her system of valuing commodities for duty purposes. Time does not permit going into this matter, but it will result in large savings in tariff duties, especially on vegetables that may come into competition with the Canadian product.

Information has just come to hand for the U. S. January trade with Canada for selected agricultural items. It is noted that the U. S. January 1936 exports of grapefruit to Canada increased 27 percent over the January, 1935 exports. Orange exports to Canada in January 1936 increased 35 percent over the same month of 1935. Pecan exports to Canada increased from 7,445 pounds in January 1935 to 115,923 pounds in January, 1936. It is realized, of course, that figures for one month are not reliable for arriving at any definite conclusions, but

they may be indicators of the effects of the lower Canadian rates on our products.

In summary, the Cuban agreement appears to place Florida agriculture at a disadvantage, whereas the Canadian agreement is particularly favor-

able to Florida agriculture. Whether the advantages of the latter will offset the disadvantages of the former remains to be proven. From the standpoint of our nation as a whole, there is little question of the advantage of these two trade agreements.

Citrus Fruits, Texas Florida Growers Must Prepare For Greater Competition

Florida's fruit growers must expect greater than usual competition from Texas citrus next fall and winter. R. B. Woolfolk, vice president of American Fruit Growers, declared recently after a study of crop conditions in the Rio Grande Valley, and he termed the Texas situation "serious" from the standpoint of Florida producers. "All indications are that Texas will have from 25,000 to 30,000 carloads of fruit next season, as compared with only 9,000 cars this past season," Mr. Woolfolk said.

"Texas growers are much surprised at the way citrus trees recovered after the freeze of a year ago. These groves now look entirely different from the way they did last August and September. The groves practically all show prospects for a heavy crop. The trees have just passed the bloom stage.

"Those groves which had the best crops this year will have two to three times the quantity of fruit this coming season and there are, in addition, large acreages of younger trees which had no crop at all last season that now show prospects for quite a heavy crop. The total production the past year was approximately 9,000 cars and from all appearances there will be 25,000 cars of fruit available next fall and winter if there is no serious climatic damage," Mr. Woolfolk continued.

He pointed out that Texas growers

generally are "very optimistic" and that they are taking much better care of their groves than they did last season, all of which will tend toward the production of quality fruit.

"If this big crop of Texas grapefruit matures, it is going to be quite a problem to find a market and it is the expectation of the distributors and growers that considerable quantities of fruit will be shipped by steamer to the Atlantic coast markets, such as New York, Baltimore, Boston, etc. The ports at Brownsville and Port Isabel, Tex., are worth looking at these days, since improvements were started. The Texans are building a large warehouse at Brownsville with docks capable of loading three large ships at one time. The canal is already completed, with a depth of 25 feet, and it is asserted this will permit the loading of any ship that is likely to come to this port. They expect to complete the warehouse and docks by May 1.

"There is also great enthusiasm among Texas growers and distributors over prospects for utilizing considerable quantities of grapefruit for canned grapefruit juice. The U. S. Department of Agriculture has an experimental station near Weslaco, Tex. which is in charge of a very efficient young man who is devoting practically all of his time and effort to the packing of canned grapefruit juice and to the necessary machinery.



'Aero' Cyanamid is the SUPERIOR Citrus FERTILIZER

IT

- Supplies nitrogen—more pounds per ton than any other standard carrier.
- Also supplies lime that sweetens the soil.
- Holds fast to the soil—is not washed out by rains.
- Has even, long-time effect required to produce quality fruit.
- Is especially suited for use during the rainy season of early summer, or during the fall when the cover crop is being cut into the soil.

Write for
LEAFLET F-136

AMERICAN CYANAMID COMPANY • ORLANDO

'Aero' Cyanamid is Nitrogen plus Lime

It is said that one plant which has been perfected has a capacity of 400 gallons of juice per hour and duplicates of this plant will cost around \$9,000 or \$10,000.

"Considering that Texas is going to have a tremendous crop of fruit, unless something unforeseen happens, and that this fruit will be marketed in the most efficient manner, Florida's growers can well expect some severe competition this coming season. The arrival of steamers filled with Texas grapefruit at the eastern seaboard markets is going to be a threat to Florida's established business there. In addition, we see Texas going into the canning business on a gigantic scale.

"On account of the freight rate structure it is impossible for Florida to compete with Texas in the markets west of the Mississippi River. That, with the low water transportation rates which Texas will have to the eastern seaboard markets, leaves two courses open to Florida growers which I think will save the situation. The first is a re-adjustment of freight rates to the interior and western markets. Second, Florida must have an advertising campaign stressing the health benefits of Florida grapefruit juice. Both will be necessary," Mr. Woolfolk declared.

"Florida will have to meet this Texas competition. During the summer we must prepare to market our own crop of Florida fruit profitably. These problems are enough to keep Florida's growers and shippers busy, working and planning, all during the summer months," Mr. Woolfolk concluded.

Insecticides

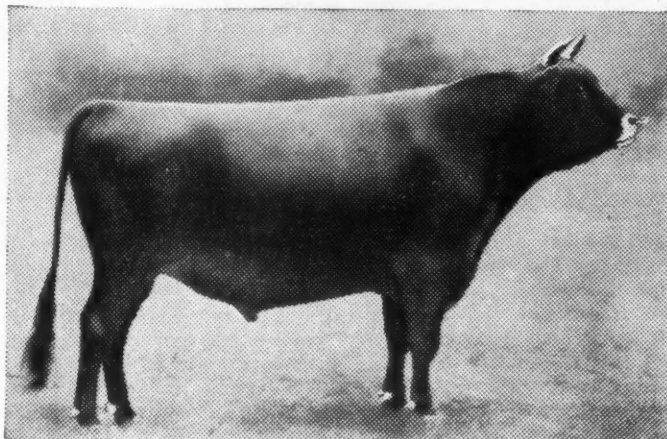
INVESTIGATIONS WITH NEW INSECTICIDE TO BEGIN AT GAINESVILLE

A research fellowship or experimental work with one of the newer insecticides has been established at the University of Florida College of Agriculture, it is announced by Dr. John T. Creighton, head of the department of economic entomology and plant pathology.

W. P. Hunter, graduate instructor in the department, began experimental work about the first of April, testing the efficiency of the product in controlling such insects as scale, whitefly, red spider, rust mite, and aphids. After the first year it is planned to transfer the work to the Citrus Experiment Station, Lake Alfred. It is planned to conduct the tests over a period of years.

The fellowship has been granted by The Rohm and Haas Co. for investigations with Lethane, Dr. Creighton says.

KING of Them All



Foremost Highflyer, 1935 Grand Champion Jersey Bull.
Owned by A. H. Goss, The Oaklands, Ann Arbor, Mich.

THERE ARE PLENTY of Jersey bulls in America, but only one among all the thousands, stands out as National Champion. Foremost Highflyer won 1935 honors at the National Dairy Show, St. Louis, Mo.—a magnificent creature to which Nature gave the vital spark, the perfect natural balance of all the elements that go to make a champion. Wonderful top line, great body, fine neck, shoulders, big barreled, good on his legs—Foremost Highflyer had everything!

Most bulls are just bulls, average strong, average good, but just plain ordinary bulls. There is only one Foremost Highflyer. He stands out the King of them all—the champion.

The champion bull is Nature at her best—one of Nature's wonder creations. Favored by Nature, with her priceless gift of perfect natural balance, the champion is almost beyond price, while another bull that may look a little like him—well, he's just bull, that's all.

And here is another wonder-creation of Nature—Natural Chilean Nitrate. Like the champion bull, Natural Chilean is favored by Nature with that priceless gift of natural balance—natural blend of many elements such as boron, calcium, manganese, etc., over and above its nitrogen. Nature gave the vital spark to this nitrogen fertilizer by blending into it these vital impurities. Nature herself aged it, cured it . . . that's why Natural Chilean is the natural food for your crops.

Natural Chilean contains almost two score of major and minor elements such as boron, magnesium, manganese, iodine, calcium, potassium, etc.—each a vital element in growth and healthy development of plants.

Natural CHILEAN NITRATE

OF SODA

WITH VITAL IMPURITIES IN NATURE'S OWN BALANCE AND BLEND

Market Information To Be Made Available For Truckers

Organization of the Truckers Bureau, Inc., an organization to collect and distribute information relative to the movement of fruits and vegetables by truck, was announced by Harry A. Grant, Washington attorney and president of the Bureau. Headquarters of the Bureau will be at 2401 Bladensburg Road, N. E., Washington, D. C.

Ashton H. Williams, of Florence, S. C., attorney for the Bureau for the states of Virginia, North Carolina, South Carolina, Georgia and Florida, said the Bureau would begin active operation about May 1.

The purpose of the Bureau will be to collect and distribute necessary information covering the movements of fruits and vegetables by truck, to establish a point where growers and shippers may communicate by wire or telephone with the drivers of the trucks, thereby enabling the shipper or grower to intelligently divert his cargo and to assist in proper distribution of marketing of fruits and vegetables by truck.

For a number of years, the Department of Agriculture has been making daily reports of the movements of fruits and vegetables and other farm products by rail and boat. The movement of fruits and vegetables by truck has increased enormously during the past few years, and, since no check is made of this movement, marketing conditions in some of the leading markets very frequently are chaotic.

Shipments by trucks are usually made blind except where the grower has sold prior to leaving the shipping point, and since the truck driver has no information relative to movement of other trucks to particular markets, the markets are very often flooded causing a depression in the prices. It

is hoped by the backers of this movement to report truck load shipments of fruits and vegetables to prevent the flooding of any of the eastern markets.

Mr. Grant announced today that, in addition to the reporting bureau in Washington, D. C., offices would also be maintained at or near New York and Philadelphia. For the convenience of shippers, brokers and growers, telegraph and telephone service will be maintained not only at the Washington office but at New York and Philadelphia offices, and an agent of the Bureau will be on hand in these offices at all times to serve the shippers, brokers, growers and truck owners. This movement is generally endorsed by the southern growers and shippers.

The shipper or grower is not asked to do anything except to require the truck carrying his fruits and vegetables to stop and report to the Bureau. No contributions will be asked nor will any one be asked to assume any obligation, whatsoever. In the beginning the reports will be mailed without charge, or telegraphed or telephoned collect to any one who wants them. As soon as the Bureau is firmly established and demonstrates that accurate reports of the truck movement can be gathered and distributed, a small charge for the service will be made, but in no event will the charge be in excess of the absolutely necessary expenses for maintaining the organization.

Mr. Grant issued the following appeal to the growers, shippers and truck owners:

"I sincerely hope that every one interested in better prices for fruits and vegetables will cooperate to make the reports of the Bureau as accurate as possible. It is apparent to any one that better distribution will be possible if the Bureau can issue accurate reports. This means better prices. The shipper and grower, of course, are vitally interested in better prices. The truck owner is also vitally interested in better prices because, if the prices are better, the business of hauling fruits and vegetables will naturally be better. Since we are not asking the shipper, grower or truck owner to make any contribution, and since it is distinctly to his advantage to cooperate, we feel quite confident that the Bureau will be a tremendous success and will bet-

ter the conditions of all those who engage in the fruit and vegetable business. I shall be glad to have any interested party communicate with me at 306 National Savings & Trust Building or with Ashton H. Williams, Attorney, at Florence, South Carolina."

SIX-SPOTTED MITES

THREATEN FLORIDA

Citrus growers should be on the lookout for six-spotted mites as they are becoming numerous in many groves, warns W. L. Thompson, assistant entomologist at the Lake Alfred Citrus Experiment Station. They are particularly numerous on grapefruit in the ridge section, he reports.

The mites feed on the underside of the leaves and cause them to turn yellow and drop. Contact with the spray material is necessary for satisfactory control, therefore it is essential to obtain a thorough coverage of the underside of the leaves.

Lime-sulfur 2-100 will kill six-spotted mites. An addition of wettable sulfur, 5 to 10 pounds per 100 gallons, will add to the strength of the spray for the control of young scale and whitefly, which are abundant at this time of the year. If Bordeaux mixture is being applied, an addition of wettable sulfur, 10 pounds per 100 gallons to that spray will help to check the mites, but it is not as effective as lime-sulfur.

Additional recommendations for the control of grove insects and diseases at this time of the year are contained in a citrus spray and dust schedule for the 1936-37 season, recently published by the Florida Citrus Commission in its better fruit program. Copies are available at the offices of county agents, or they can be had by writing to the Commission at Lakeland.

FOR SALE

Lists of Florida Citrus Growers compiled from recent survey of groves, arranged by counties. Names, address, acreage and legal description.

Also List wealthy residents of Florida

National Survey Co.

P. O. Box 163
ATLANTA, GA.

C. D. Kime

Consulting
Horticulturist

Grove Advisory Service,
Soil Investigations,
Research.

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ORLANDO

Jardine Named New Research Head For U. S. D. A.

Appointment of Dr. James T. Jardine as Director of Research for the U. S. Department of Agriculture has been announced by Secretary Wallace. Dr. Jardine has served as Chief of the Office of Experiment Stations in the Department since September 15, 1931, and will continue in this capacity. His additional assignment becomes effective immediately.

As Chief of the Office of Experiment Stations and Director of Research, Doctor Jardine will be responsible for these major activities. He will continue in charge of the Office of Experiment Stations, which administers Federal grants to the States and Territories for the agricultural experiment stations, and coordinates this work with similar research of the Department. As Director of Research for the Department, he will cooperate with the bureaus in planning and coordinating their research work. As a third function, he will have general administration of a Special Research Fund made available by the Bankhead-Jones Act, approved June 29, 1935, including the planning and coordination of the research program of the Department under this fund.

Doctor Jardine has recently served on several important committees in developing plans for research. He is chairman of a committee for soil conservation research and is serving on the land policy committee, the committee on plant and animal improvement, and many others.

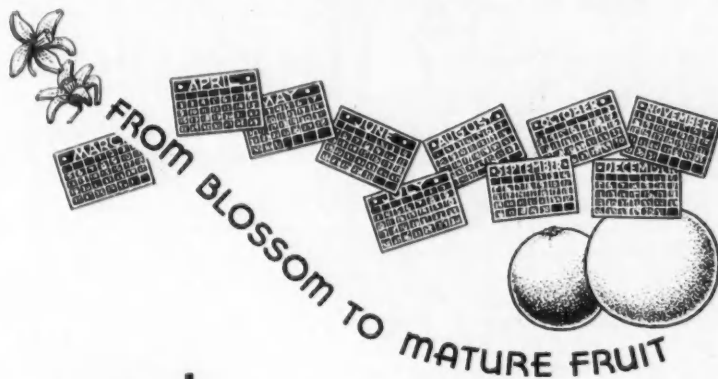
Doctor Jardine, a native of Idaho, was born November 28, 1881. His early life was spent on a farm. He was graduated from the Utah Agricultural College in 1905, after which he did special work at the University of Chicago. He then returned to the Utah Agricultural College as instructor in English.

In 1907 he became a special agent for the Forest Service. He was Forest Supervisor from 1908 to 1910 and Inspector of Grazing, in charge of the National Forest Range Investigations and Range Surveys from 1910 to 1920, when he became Director of the Oregon Agricultural Experiment Station. He remained in this position until coming to the Department of Agriculture in 1931.

Doctor Jardine has been selected from time to time for important Government missions, among these being a study of the agricultural situation in Alaska and a survey of the Land

(Continued on page 22)

IT'S A LONG STEP



and

how well your grove carries through to maturity a crop of good-quality, fine-textured fruit, will depend more than ever this year on a well-balanced fertilization plan. Weather conditions have prompted flush growth, a big-crop "set" is apparent, and in most groves there's need for replacement of plant foods leached away by excessive moisture. Gulf Brands of Fertilizer will provide the *balanced* energy most groves need for that long step from now until picking time . . . and they'll prove more economical in the long run because they are complete in long-lasting plant foods. Ask the Gulf Field Man in your neighborhood to outline a program for you. And he'll also bring you dependable advice on all sorts of crop problems, including insect and disease control.



THE GULF FERTILIZER COMPANY
36th Street, South of East Broadway, Tampa, Florida

Grapefruit . . . In The United States

BY A. C. EDWARDS
U. S. DEPARTMENT OF AGRICULTURE

Grapefruit is the newest member of the citrus family to be planted on a large scale throughout the world and, consequently, practically every producing country has a large acreage of young or non-bearing groves. World production at the present time is about 25,000,000 boxes, compared with an average production, in the 5-year period 1926-27 to 1930-31, of 15,400,000 boxes. At the present rate of increase, world production should be around 35,000,000 boxes by the 1938-39 season and may possibly reach 50,000,000 by the 1943-44 season. The United States is the outstanding producer. In the 5-year period, 1926-27 to 1930-31, the United States supplied 81.5 per cent of the total world production and Puerto Rico 7.1 per cent, the balance of 11.4 per cent was supplied by all other countries. In the 5-year period 1930-31 to 1934-35, the United States supplied 83.2 per cent of the world production of 25,500,000 boxes, Puerto Rico 3.7 per cent and all other countries 13.1 per cent. Outside of the United States and Puerto Rico, the chief production countries are Palestine, South Africa, Brazil, Cuba and Jamaica. Production in these countries, particularly Palestine, is increasing rapidly.

Although the United States continues to be the outstanding grapefruit producing country, exports have not kept pace with production. In the 5-year period, 1926-27 to 1930-31, the United States and Puerto Rico, together supplied about 76.6 per cent of the world exports of around 2,050,000 boxes whereas in the 5-year period, 1930-31 to 1934-35, exports from the United States and Puerto Rico constituted only 58.3 per cent of the world exports of about 2,900,000 boxes. This decline in the share of the fresh grapefruit trade held by the United States and Puerto Rico at the earlier date is explained by the rapid increase in exports from such countries as Palestine, South Africa and Brazil. It is difficult to forecast with any degree of certainty the upward trend in world grapefruit exports, since exports will depend on consumer reaction. The increase be-

tween 1929-30 and 1934-35 season was about 5 per cent a year. If this rate of increase continues for another decade exports will reach around 6,000,000 boxes a year. This estimate takes into consideration the fact that the rate of increase in exports has accelerated in the last three years.

Up until the last ten years or so the world production of grapefruit was more or less synonymous with the American production, since grapefruit were not grown commercially on a large scale outside of the United States. The only historical information on grapefruit production for the period prior to 1920 is the United States production. Florida continues to be the dominant source of supply in the United States, but production is increasing rapidly in Texas, California and Arizona and the combined production of these states may soon exceed that of Florida.

Total shipments in the 1934-35 season from all states amounted to 24,393 cars, the largest number since 1931-32. New York City, in 1934-35, took 6,838 cars. Chicago, 2,035, Philadelphia, 1,531 and Boston, 1,131 cars. None of the other cities in a list of sixty-six took as many as a thousand cars, and for most of them the number was less than five hundred. The leading markets outside of the centers mentioned above were Detroit, Cleveland, St. Louis, Cincinnati, Pittsburg, Baltimore, Kansas City, Minneapolis, Buffalo, Seattle and Milwaukee. A considerable quantity of grapefruit entering the New York market came from Porto Rico and Cuba.

Grapefruit exports from the United States last season were 1,021,582 boxes, an increase over the two previous seasons. Of the 1934-35 exports, 463,241 boxes went to Canada, 461,342 to the United Kingdom, 60,487 boxes to Continental Europe and 36,512 to all other countries. While Canada and the United Kingdom constitute by far the largest foreign markets, those on the continent of Europe are showing a rather rapid development. The most important of them as

yet are France and the Netherlands.

Canned grapefruit has rapidly gained a place for itself in the export field and is almost as important as the exports of fresh grapefruit. The 1934-35 pack was an all-time record of 5,825,000 cases of hearts and juice, 61.6 per cent of the former and 34.4 per cent of the latter. Practically all of the exports go to the United Kingdom, but shipments to other countries are increasing.

Rickborn Joins Florida Dolomite Co.

J. H. Rickborn, of Lakeland, has become sales manager of the recently organized Florida Dolomite Company, of Pembroke, Florida.

Mr. Rickborn received his B.S. degree at Clemson College, later securing his master's degree at Iowa State College. After graduating he was connected for a time with the National Fertilizer Association in their Southern experimental station, later being associated with the American Cyanamid Co., in Texas, California and Florida.

For the past three and one-half years Mr. Rickborn has been a member of the sales staff of The Lyons Fertilizer Company.

PRELIMINARY PROGRAM 49TH ANNUAL MEETING FLA. STATE HORTICULTURAL SOCIETY (Continued from page 5)

Business Session.

Thursday, May 7, 8:00 P. M.

Address—"Annuals and other Flowers for Florida Gardens", David K. Stabler, Lake Wales.

Illustrated Lecture—"The Gardens of England", Rev. John Everington,

E. L. LORD

Consulting Horticulturist
Grove Advisory Service
Economical, Safe, Effective
Why not give your grove a break?

P. O. Box 757
Winter Haven, Fla.

April, 1936

Clearwater.

Business Session.

KROME MEMORIAL INSTITUTE
Paul Hoenshel, Port Mayaca, Vice-
President & Chairman

Wednesday, May 6, 9:30 A. M.
Opening Address—Dr. David Fair-
child, Coconut Grove.

Address—"Effects and After-
Effects of Hurricanes on Sub-Tropi-
cal Fruits", Dr. H. S. Wolfe, Home-
stead.

Address—"Avocadoes in the Post-
Freeze Period", W. F. Ward, Avon
Park.

Address—"Avocado and Mango
Disease Control"—H. E. Stevens,
Orlando.

Address—"Commercial Guava Pro-
duction in Florida", Karl Smith,
Bradenton.

THE CITRUS INDUSTRY

Address—"Papayas", J. R. Brooks,
Miami.

Wednesday, May 6, 2:00 P. M.

Address—"Herbs for Florida —
Their Use and Commercial Possibili-
ties", Dr. E. J. Ireland, Gainesville.

Address—"The Lychee", Earl Wirt,
Babson Park.

Address—"Florida Should Have a
Plant Quarantine Station", A. H.
Andrews, Estero.

Address—"Loquats", Mrs. Isabelle
Krome, Homestead.

Address—"Limes and Their Hand-
ling", Frank Stirling, Davie.

Address—"The Present Status of
the Lime Bark Disease", Dr. W. B.
Tisdale, Gainesville.

ANNOUNCEMENTS

The meetings of the Florida State

Seventeen

Horticultural Society will be held in
the Auditorium of the DeLand Cham-
ber of Commerce. Those of the Krome
Memorial Institute will be held in the
parlors of the Putnam Inn which has
been selected as headquarters of the
Society.

The Garden Club of DeLand will
stage its Annual Flower Show in the
American Legion Hall which is locat-
ed next to the Chamber of Commerce.
The rose exhibits of the Florida Rose
Society will be included in this show.

The Florida Rose Society will hold
its Eleventh Annual Meeting on Wed-
nesday afternoon, May 6 at a place
to be announced.

The Registration Desk for all meet-
ings will be located at the Putnam
Inn.

The Continued Use Of

NITROPHOSKA

See For Yourself -

Visit A NITROPHOSKA Grove
In Your Section

(Names and locations gladly furnished)

PAYS!

We quote a few comments chosen at random from among many
NITROPHOSKA users

In **ORANGE County** — "This is my nineteenth consecutive application
of NITROPHOSKA in six years. I have the finest grove
and produce the best fruit in my section."

In **INDIAN River County** — "We have used NITROPHOSKA five
years straight. Crops large and the finest fruit that goes
thru the local packing house."

In **POLK County** — "NITROPHOSKA the only complete fertilizer
used in the last five years. Heavy crops, and our fruit
commands a big premium."

In **PINELLAS County** — "Have used eighteen consecutive applications
of NITROPHOSKA on Marsh Seedless grove in six years,
and no other fertilizer. The property is a show-place;
the cost per box of fruit very low."

JACKSON GRAIN COMPANY, Tampa, Fla.

Sole Distributors For Florida

Citrus Prices Rule Higher Than A Year Ago

Florida citrus growers have received at least \$9,000,000 more thus far this season than they did for the same quantity of fruit sold up until March 31 last year, it was estimated by the Florida Citrus Commission. However, as there have been 2,850,000 fewer boxes of grapefruit, oranges and tangerines sold in northern markets and to canneries this season, the increase to date in net returns is about \$4,285,000.

Average auction prices thus far this season have been 45 cents per box higher on oranges, 54 cents higher on grapefruit and 33 cents higher on tangerines. Auction figures are used in comparing returns because they offer the only public record of prices paid for Florida fruit, the Commission explained. Prices paid for some fruit in private sales will be even greater, it was said. Estimates on returns to growers cannot be compiled until the end of the shipping season, when all statistics are available.

Shipments of 9,624,768 boxes of oranges to northern markets by rail, boat and truck, thus far this season, are estimated to have sold for \$28,200,570, or an average of \$2.93 per box, compared with shipments of 10,898,840 boxes to the same date last year, which are estimated to have sold for \$27,121,204, or an average of \$2.48 per box.

Shipments of 5,233,200 boxes of grapefruit to northern markets by rail, boat and truck, thus far this season, are estimated to have sold for \$13,287,664, or an average of \$2.52 per box, compared with shipments of 5,949,490 boxes to the same date last year, which are estimated to have sold for \$11,779,990, or an average of \$1.98 per box.

Shipments of 1,762,824 boxes of tangerines to northern markets by rail, boat and truck, to February 29, are estimated to have sold for \$4,706,740, or an average of \$2.67 per box, compared with shipments to the same date last year of 1,631,740 boxes, which are estimated to have sold for \$4,018,271, or an average of \$2.34 per box.

Florida canneries have purchased about 3,500,000 boxes of grapefruit thus far this season at an average price of about 70 cents per box, compared with purchases of about 4,500,000 boxes up to the same time last

year at an average price of 32 cents per box. Growers have received a million dollars more for a million boxes less of cannery fruit this season.

Increase in the market value of fruit will be reflected in equally higher returns to growers, for costs of packing and delivering fruit to northern markets are no greater this year, said L. P. Kirkland, Commission chairman. "As a matter of fact, some of these costs are less than they were last year," he said.

Mr. Kirkland pointed out that Florida oranges have been outselling those from California in many markets this season, for the first time in several years, and that the average increase in the price of Florida oranges has been twice that of California fruit. Texas grapefruit prices advanced 17 cents per box on auction markets this season, while Florida sales have averaged 54 cents higher than last year.

"Several factors are responsible for the better prices paid for all Florida fruit this season," said Mr. Kirkland. "Our oranges have had better color, there has been a better standardization of shipments under the new state inspection laws, and economic conditions generally are improved. The fact that we had a freeze in the 1934-35 season does not detract from the better showing made this year, for in the season before that of 1933-34, when we marketed just as much fruit as was sold last season, prices were almost as low.

"Take tangerines, for example. Up to February 28 this year we sold 1,762,824 boxes at an average of \$2.67, compared with sales to the same date in 1934-35 of 1,631,740 boxes at an average of \$2.34, and sales of 1,733,140 boxes in 1933-34 at an average of \$2.45.

"We have had one thing this season that we did not have before, and that is a national advertising campaign on all Florida fruit. Analysis of marketing conditions this year offers convincing proof of the effectiveness of this advertising. The greater demand it has created for our grapefruit, oranges and tangerines is directly responsible for much of the improvement in prices. As the result of an expenditure of about \$400,000 in advertising, growers will receive at

least \$10,000,000 more than they did last year, for the same amount of fruit.

"Equally important is the fact that this advertising has placed Florida growers in a position where once more they can sell their fruit successfully in competition with that from California and Texas. Despite the fact that Florida grapefruit shipments in March were heavier than in the two preceding seasons, and flood conditions handicapped sales in many sections, average auction prices steadily advanced throughout the month. That would not have been the case if we had not been able to advertise and maintain consumer demand. Since we have started to advertise the large-sized late oranges there has been a marked improvement in the demand for them."

Ninety-four newspapers with a total circulation of 14,551,054 are being used in the national advertising campaign of the Florida Citrus Commission, as well as radio stations and trade publications. Its sales promotion department has distributed 62,000 posters of Florida oranges, grapefruit and tangerines to northern retail stores. Fifty thousand booklets on the health values of Florida fruit have been sent to consumers from the Commission's Lakeland office.

Plenty of soap but little or no bleach is the rule in laundering sheets and other household textiles. Piling too many sheets on a shelf makes sheets wear at the folds. So does ironing in the folds. As on all fabrics, the less ironing the better, and never use an extremely hot iron. Rough spots on beds or springs often snag sheets.

PATENTS

Send me sketch, picture, or model of your new invention. I will give you prompt report on its probable patentability based on a search of the patent records for a small charge.

PLANTS, BUSHES, TREES, VINES, ETC.

can now also be protected by Patents.

International Building

GEORGE E. COOK

Washington, D. C.

Registered Patent Attorney

Activities Of . . .

Florida Citrus Commission

New regulations will be formulated by the Florida Citrus Commission for the registration of citrus box labels next season, it was decided following a conference with shippers. The Commission rescinded a regulation which would have required the use of colored borders on labels to designate the different grades of fruit.

The conference of shippers approved a suggestion by R. B. Woolfolk, Orlando, that all labels to be used next season must be registered by September 1, that they cannot be changed during the season, and that each packer must post his labels so inspectors, growers and buyers can readily see what grades they represent. The Commission instructed its attorney to draft regulations along these lines for further consideration.

Adoption of a bronze grade also was recommended by the shippers, who asked Chairman L. P. Kirkland to appoint a committee of five to consider other changes in grading standards before the beginning of the

1936-37 shipping season. Mr. Kirkland pointed out that in this matter the Commission could merely recommend changes in grading rules to the United States Department of Agriculture, which fixes them.

Reports on activities of the Florida Citrus Commission will feature the 49th annual meeting of the Florida State Horticultural Society, to be held at DeLand on May 5, 6 and 7. Sub-tropical fruits will be discussed at the fourth annual meeting of the Krome Memorial Institute on May 6, and the annual show of the Florida Rose Society will be held the same day.

Growers interested in raising better fruit of good texture will be offered the latest information on grove insect and disease control methods. The Commission's better fruit program, which has been widely commended as one of the most progressive developments in Florida citrus production methods, will be explained by E. W. Hartt, of Avon Park, Commission member, and E. F. DeBusk, representing its advisory committee.

C. E. Stewart, DeLand, will discuss "The Florida Citrus Commission and Its Work," and Marvin H. Walker, its publicity director, will describe advertising and publicity activities during the past season to create greater consumer demand for Florida fruit. Other addresses on the marketing and advertising of citrus fruits will be made by A. W. McKay, Orlando; B. L. Hamner, Tampa; E. W. Brown, DeLand; Howard Phillips, Orlando, and W. C. Daniells, Eustis.

Prof H. Harold Hume, Gainesville, will compare the citrus industries of Florida and California in an address on his recent visit to citrus sections of the Pacific coast. Developments in research on citrus products will be described by Dr. H. W. von Loesecke, Winter Haven. Other subject for discussion include citrus freight rates, the fruit-frost service, fertilizers and cultivation methods.

PROPER APPLICATION OF FERTILIZER PAYS

Washington, D. C., April 9. Many thousands of out-of-date fertilizer distributing machines are still in use on American farms, according to H. R. Smalley, Agronomist, The National Fertilizer Association and Gen-

eral Secretary of the National Joint Committee on Fertilizer Application.

This is particularly true of such machines as corn planters, potato planters, transplanters, and other machines that apply fertilizers in the hill or row at time of planting.

Many experiments that have been carried on during recent years show that for crops that are planted in rows and cultivated it is best to apply the fertilizer in two bands at the side of the hill or row and slightly below or on a level with the seed. The fertilizer should be far enough away on each side so that there will be 1 to 2 inches of soil separating the fertilizer from the seed, or, in the case of the transplanted crops, from the young plants. This method of application, as compared to application under the row or mixed with the soil in the row or any method that permits fertilizer to come in contact with the seed, results in yields that are substantially higher and that are obtained at no additional cost. Typical increases in yield due to the side application method are 25 to 30 bushels of potatoes per acre, 200 to 300 pounds of seed cotton per acre, 100 pounds or more of tobacco, 5 to 10 bushels of corn, and even more striking increases in the case of such crops as beans, peas, spinach, kale, and others which are especially sensitive.

It will pay every farmer who uses fertilizers to inspect his machines carefully to make sure that they apply fertilizer correctly and if they do not to order new attachments if available or even to buy entirely new equipment.

Use of a fungicide to moisten the ground around health plant and removal of all affected plants are two important steps in the control of damping-off diseases in garden plots.

Citrus County will have more vegetable gardens this spring than ever before, says a report from Mrs. Elizabeth W. Moore, home agent.

Intelligent Advertising

*Enlarges Business and
Profits Simultaneously*

Best Business Insurance

Service includes plans, copy, illustration, placing . . . newspapers, periodicals, radio, outdoor, direct-mail . . . based upon critical analysis of the individual business, budgeted on sales.

A Money-Saving Service

30 years personal experience including service to numerous large national advertisers; very complete facilities (Associated Advertising Agency, Jacksonville), also affiliation with recognized advertising agencies in 23 leading U. S. and Canadian cities. Intimate knowledge of Florida and agricultural problems.

Publishers' "recognition" saves administration expense to advertisers, permits money spent to go into actual advertising.

Frank Kay Anderson
Agricultural Advertising
On the Ola Homestead, near
Altamonte Springs, Fla.

Serving some of the South's foremost businesses.

J. F. AHERN

Consulting Engineer

Specializing In

Diesel, Electric and

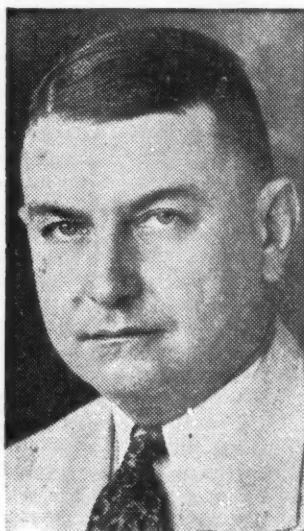
Hydraulic Engineering

Phone 7-4755 2365 Post St.

Jacksonville, Florida

Grady Burton

For Governor



His Election Will Insure You

An Honest, Fearless and Impartial Administration of the State's Affairs—

A determined fight by the governor against the efforts of great land holders to control the state—

A guarantee that the governor will veto any sales tax which the legislature might pass—

Unremitting efforts to have the schools of the state financed from the general funds of the state—

A determined effort to reduce governmental expense to a point where present tax burdens may be lightened—

Every legitimate assistance to foster and promote the welfare of Florida's great citrus industry—

Definite assurance that the office and powers of the governor shall be used to promote the welfare of the entire state and not devoted to any self-interested group or clique.

VOTE FOR GRADY BURTON FOR GOVERNOR

Burton For Governor Club

(This advertisement prepared and paid for by friends who know that Burton's election would be in the best interests of Florida)

(Paid Political Advertisement)

RESEARCH TO OCCUPY PROMINENT PLACE IN HORTICULTURAL TALKS

Research work by the Experiment Station and observations by the Agricultural Extension Service will be discussed before the annual meeting of the State Horticultural Society in DeLand May 5, 6 and 7. Talks will be given on citrus troubles of various kinds, fertilization, particularly with rare elements, utilization of fruit, and other phases of importance to the citrus industry.

From the Citrus Experiment Station at Lake Alfred, Dr. A. F. Camp and Dr. B. R. Fudge will participate in a conference on major plant food elements for citrus, led by Dr. R. M. Barnette of the Main Station. Others from Gainesville scheduled on the horticultural society program include H. Harold Hume, J. R. Watson, Prof. C. E. Abbott, and E. F. DeBusk.

Miss Isabelle S. Thursby of the Extension Service in Tallahassee, and Dr. A. S. Rhoads of the citrus laboratory at Cocoa also will participate in this program. Dr. H. S. Wolfe of Homestead and Dr. W. B. Tisdale of Gainesville are slated to appear before the Krome Memorial Institute, to be held in connection with the session of the State Horticultural Society.

This is the forty-ninth annual meeting of the horticultural group. It begins at 8 p. m. Tuesday, May 5, John S. Taylor of Largo is president and B. F. Floyd of Davenport secretary.

CITRUS GROWERS MUST ACT PROMPTLY AGAINST MITE TO AVOID LOSSES

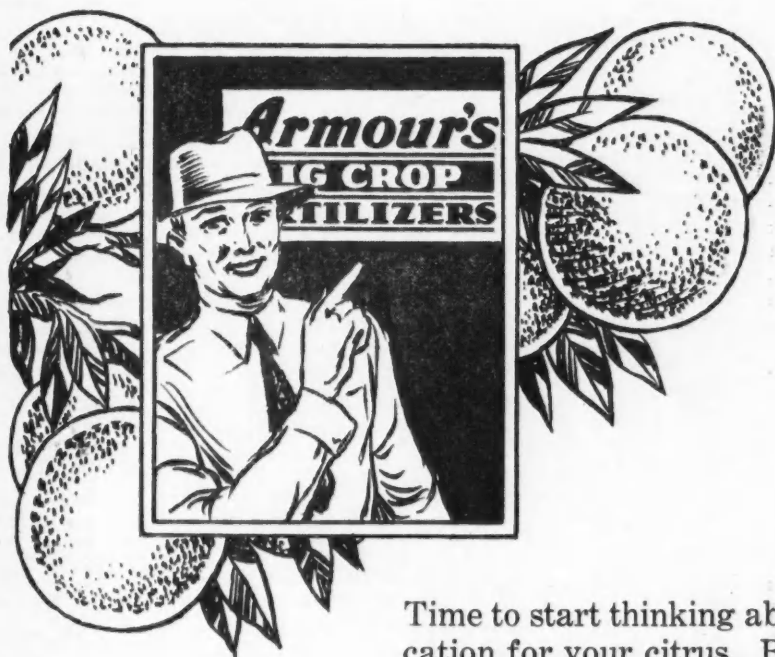
The six-spotted mite, one of the red spiders, is becoming quite numerous in the citrus belt and will do considerable damage to citrus unless prompt control measures are taken against it, according to J. R. Watson, Experiment Station entomologist.

The mite attacks grapefruit trees more than it does oranges, being found on the under sides of leaves. It causes yellow spots to form on the leaves. Citrus trees will lose many leaves from the attacks of this pest if it appears in large numbers.

A spray containing 98 gallons of water, 2 gallons of lime-sulfur, and 5 to 10 pounds of wettable sulfur is an effective method of control of this mite, Entomologist Watson explains. This spray also helps to control other mites, the whitefly, and other citrus pests. The six-spotted mite thrives in dry weather and growers in sections that have not had rain for some time should lose no time in beginning to control the pest, Mr. Watson says.

YES, THEY'RE MADE IN FLORIDA

To Suit Florida Soil and Grove Conditions



Time to start thinking about the Summer Application for your citrus. Before long you'll want to encourage more vegetative growth in your grove, and mature properly the crop that sets on the trees.

The fertilizer you are going to apply should be heavy in organic content; it has a long job of feeding to do. Armour's Big Crop Fertilizers provide the balanced ration of major plant foods your citrus will require — then, too, these fertilizers supply a generous amount of helpful minor and secondary plant foods, without extra cost.

May we have one of our field representatives call and discuss your summer fertilizing schedule with you?



ARMOUR FERTILIZER WORKS

Jacksonville, Florida

USE ARMOUR'S ACTIVE PLANT FOODS

STUDENTS MAKE TRIPS TO GET INFORMATION ON TRUCK AND CITRUS

To get first-hand information on production, packing, and marketing of truck crops, 18 students of the University of Florida College of Agriculture left Gainesville Monday morning, April 20, for a two-day trip to several leading truck sections of the state. They were accompanied by Charles E. Abbott, professor of horticulture.

The students, all of whom are studying vegetable production, visited the Hastings potato area, the Sanford celery section, the Winter Garden, Center Hill, and Leesburg truck sections, and the Lake Weir section where celery is grown on mucklands. They also visited fields, packing and washing plants, a precooling plant, and a truck marketing shed.

A tour for giving practical information and instruction about citrus production and marketing was made by students in citrus culture at the University. Twenty-six students, also accompanied by Professor Abbott, made the trip, leaving there Monday morning, April 13, and ending it at Lake Alfred on Wednesday night, April 15. The tour included groves and packing plants at Lake Weir, Leesburg, Plymouth, Apopka, Cocoa, Merritt's Island, Vero Beach, Ft. Pierce, Lake Placid, Lake Wales, Winter Haven, and the Lake Alfred Experiment Station.

JARDINE NAMED NEW RE- SEARCH HEAD U. S. D. A. (Continued from page 15)

Grant Colleges and Universities. He compiled the report of the findings on research in this latter survey. This gave him an unusual opportunity to familiarize himself with the work of the experiment stations throughout the country.

He is a Fellow of the American Association for the Advancement of Science, member of the Washington (D. C.) Academy of Sciences, member of Sigma Xi, Phi Kappa Phi, and of several other honorary Societies.

The Kansas State Agricultural College conferred on him the degree of D. Sc. in June, 1935.

Two million cases of malaria in the United States last year is evidence enough to convict the mosquito of being mankind's worst insect foe.

IF suffering with Piles, I want to help you. Drop me a line explaining.

Fred C. Whitney
317 6th Ave., Des Moines, Iowa

CLASSIFIED

Advertisements

The rate for advertisements of this nature is only five cents per word for each insertion. You may count the number of words you have, multiply it by five, and you will have the cost of the advertisement for one insertion. Multiply this by the total number of insertions desired and you will have the total cost. This rate is so low that we cannot charge classified accounts, and would, therefore, appreciate a remittance with order. No advertisement accepted for less than 50 cents.

2 YR. FIELD GROWN ROSE BUSHES: Red, Pink, Shell, Salmon, White Radiance, Hollande, Columbia, Briarcliff, Sunburst, Pres. Hoover, Victoria, Talisman, Sensation. All 19c each, postpaid. Ship C.O.D. **NAUGHTON FARMS,** Waxahachie, Texas.

CAUSERIENCE LEPIDOFLOIA — (So-called Brazilian oak), resembles Australian pine. Grand for wind-breaks. Cold resistant. Beautiful. Send for sample of foliage. \$6.00 per 100. **S. F. Matthews, Homestead, Fla.**

ALYCE CLOVER, the best legume for hay or covercrop. Write for information. **Hardin Groves, Box 63, Lakeland, Fla.**

FOR SALE — 80 acres good citrus land, two miles northwest of Cocoa, Brevard County, Florida. Price \$1600.00 cash. **S. Hendry, City Point, Florida.**

FILMS DEVELOPED 2 prints of each 25c; 20 reprints 25c. **Pine Photo, Y-5134 Nevada, Chicago.**

THRIFTY TREES and budwood from record performance Perrine Lemon parents, Persian Lime and other citrus varieties. **DeSoto Nurseries, DeSoto City, Fla.**

CROTALARIA — New crop, high quality, double cleaned, scarified *Crotalaria Striata* seed for sale. Attractive prices. **Carolinas' Crotalaria Co., Camden, S. C.**

UP to \$20.00 paid for Indian Head Cents; Half Cents \$125.00; Large Copper Cents \$500.00, etc. Send dime for list. Romanocoinshop, D. Springfield, Mass.

Large citrus trees for replanting at special low price. Grafted avocado trees and budwood of Perrine lemon and Tahiti limes.

WARD'S NURSERY
Avon Park, Fla.

MEN WANTED — Sell Shirts. No experience necessary. Free samples. Commission in advance. Free ties with shirts. **Carroll Mills, 875A Flatbush Av., Brooklyn N. Y.**

HARDIN'S SPERRYOLA Lemon, a profitable adapted commercial variety for all sections. Hardy, prolific grower and producer. Limited number choice trees. **Hardin Nurseries, Box 63, Lakeland, Fla.**

WANTED — Man with from ten thousand to twenty thousand dollars to grow an entirely new orange for the U. S. markets. Cheap lands, no cold, plenty water, no fertilizer. A world beater in an orange. Patented.—Address, **Buen Negocio, Gaveta -1, Holguin, Cuba.**

PERSONAL

QUIT TOBACCO easily, inexpensively, without drugs. Send address. **N. A. Stokes, Mohawk, Florida.**

POSITION WANTED — Managing, caring for citrus grove, for good, reliable party. Highest type reference gladly furnished. **H. A. KUTER, Elkton, Fla.**

WANTED — To hear from owner of land for sale. **O. Hawley, Baldwin, Wis.**

FREE Booklet describes 87 plans for making \$20-\$100 weekly, home or office, business your own. **Elite Service, 505 Fifth ave., New York City.**

CLEOPATRA MANDARIN and Sour Orange root stock. Also Hamlin, Valencia and Persian Lime budded trees. **Grand Island Nurseries, Eustis, Fla.**

WANTED — To hear from owner having good farm for sale. Cash price, particulars. **John Black, Chippewa Falls, Wisconsin.**

PUREBRED PULLETS FOR SALE — White Leghorns and Anconas ready to ship. Barred Rocks and R. I. Reds shortly. Several hundred yearling White Leghorns now laying 70%. Write or wire for prices. **C. A. Norman, Dr. 1440, Knoxville, Tenn.**

LAREDO SOY BEANS, considered free from nematode, excellent for hay and soil improvement. Write the **Baldwin County Seed Growers Association, Loxley, Alabama**, for prices.

FANCY ABAKKA pineapple plants. **R. A. Saeger, Ansonia, Florida.**

FOR SALE — Selected budwood and trees of Perrine lemon, Tahiti lime, new varieties tangelos and other citrus. **Ward's Nursery, Avon Park, Fla.**

SCENIC HIGHWAY NURSERIES has a large stock of early and late grapefruit and oranges. One, two and three year buds. This nursery has been operated since 1893 by **G. H. Gibbons, Waverly, Fla.**

NEW COMMERCIAL lemon for Florida, the Perrine; proven. All residents need yard trees, keeping Florida money at home. Booking orders for budded stock for Winter delivery. **DeSoto Nurseries, DeSoto City, Fla.**

SATSUMA BUDWOOD from Bearing Trees. **Hills Fruit Farm, Panama City, Fla.**

SEED — Rough lemon, sour orange, cleopatra. New crop from type true parent trees. Also thrifty seedlings. **DeSoto Nurseries, DeSoto City, Florida.**

BUDDED trees new Florida commercial lemon, proven, thin skinned, juicy, scab immune. Also rough lemon, sour orange and Cleopatra seed and liningout seedlings. **DeSoto Nurseries, DeSoto City, Fla.**

SEEDS — ROUGH LEMON, SOUR ORANGE, CLEOPATRA. Pure, fresh, good germination. Also seedlings lineout size. **DeSoto Nurseries, DeSoto City, Fla.**

CROTALARIA SPECTABILIS — Seed for sale. New crop, well cured, bright and clean. Price 25c per pound in 100 pound lots and over. 80c per pound in less quantities. **f. o. b. Hastings, Bunnell, Lowell and San Antonio, Florida. F. M. LEONARD & COMPANY, Hastings, Florida.**

WANTED — Position as packing house foreman; in citrus business twenty-five years; ten years' experience as foreman; married man. **J. R. Henry, Oklawaha, Florida.**

Local Use Of Citrus Fruit Juices In Citrus Advertising

BY B. L. HAMNER, TAMPA

AT MEETING OF FLORIDA STATE HORTICULTURAL SOCIETY

I believe that in life we are prone to overlook the little things. At the time I went to school they taught that everything was made up of molecules. After I had finished they got around to the point of dividing the molecules into atoms. Later they divided them into ions. Still later into electrons. Not being over scientific, I do not know the latest divisions.

I believe that the more nearly science has approached the ultimate, the better understanding have they had of things physical, so in that case the little things have been of extra importance.

When it came to food products, they used to think entirely in terms of fats, carbohydrates, protein, etc. and more recently they have come to an understanding of vitamins and have given more attention to the mineral elements of magnesium and calcium, etc.

These are little things, but it seems that those things are the important things.

If my understanding is correct, they are now beginning to study the sources of the vitamins and they are reaching the conclusion that the vitamins are stored-up sunshine.

Having determined that it is stored-up sunshine, the study of the various rays of sunshine, like ultra-violet rays, the infra-red rays, the X and invisible rays has been intensified.

Thus I conclude that the more attention given to the little things, the more nearly do we approach a proper understanding.

In the early days, in the study of disease, great attention was given to effects and much experimenting was done to find a cure, or those things that would assist nature in the cure. In the medical science there then followed a search for causes and they found that yellow fever and malaria was carried by mosquitoes and then they determined which mosquito was the carrier.

Now, a mosquito is a small thing and its stinger is still smaller, and

what goes through the stinger is still smaller, and the germ—that is still smaller, but it has caused great havoc in the world; and when they get down to the little things they begin to find the real causes and then



B. L. HAMNER

we are able, scientifically to search out the proper treatment.

I guess that you all are beginning to wonder what all this has to do with the subject of "Local Use of Citrus Fruit Juices in Citrus Advertising".

Whenever the subject of advertising comes up, many begin to think in terms of newspapers, spreads, and magazine pages, in terms of billboards and in terms of books, and booklets, window displays and "what have you". They begin to think of the big things and possibly discount the value of little things.

We seem to live in an age where people believe that the economic problems can be solved by political measures. We seem to be in an era where people look to government to correct the inefficiencies and the misfortunes, particularly those engaged in agriculture and horticulture.

This is the following of the big

thing and possible overlooking little things.

The history of industry in this country is the history of big things which have come out of little things and which come more as an accident than by choice and direction.

Let me illustrate: The greatest development in connection with the automobile came about with the discovery of pneumatic tires and the pneumatic tires came about because a small boy riding on a bicycle equipped with hard rubber tires, complained of the jolts and bumps—"rough riding", so to speak. This small boy was the son of Mr. Dunlop, so Mr. Dunlop made a wooden wheel and on the edges of the wheel, he tacked a canvas loop. Inside of that he put a rubber tube and with a football pump, he pumped it up. That was the first pneumatic tire conceived, not as a scientific invention, but something to please a small boy. Likewise the history of great developments in industry have been the result of advertising, but in thousands of cases, the particular form of advertising that was effective, was not produced by an advertising agency, but came from the suggestion of one entirely foreign to the advertising business.

It is about time I am getting around to the subject of advertising citrus fruit.

Now I have to start and tell you something of a Florida citizen.

Mr. George Mason, who is the man who built the Mason Hotel in Jacksonville, (now known as the Mayflower) like most of us, met with reverses. He lost the Mason Hotel but thank God, never lost his nerve.

He blew into Tampa, Florida, and it is not to his discredit that he had about thirty-five cents in real money left and a considerable number of debts.

I tell you these things because this is a human interest story and I want to give you the full picture. Not aloft to give you the advertising story, but to give you the human

(Continued on page 6)

NEW! A CLAMP TRUCK

that

INSTANTLY
ADJUSTABLE
TO FIT A WIDE
RANGE OF
LOADS

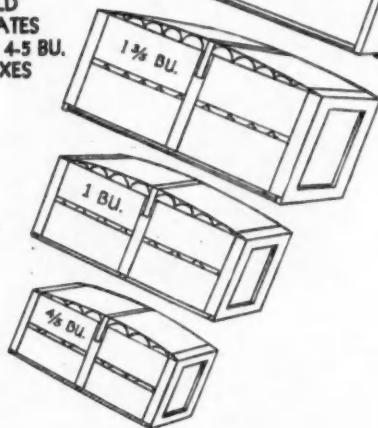
HANDLES
EVERYTHING
IN THE
PACKING
HOUSE



LOW
PRICE
\$42⁵⁰

f.o.b. Dunedin, Fla.

FROM
FIELD
CRATES
TO 4-5 BU.
BOXES



Packing house managers say the new F. M. C. UNIVERSAL Clamp Truck offers the first real new idea in truck construction in years. Certainly no other truck built duplicates its advanced features. Here's a truck that is sturdy and strong, built for long years of use . . . But it is a muscle-saver in handling big loads more quickly. That's why operators like it. Save time spent in adjusting truck equipment and extra investment in clamp trucks by using the new F. M. C. UNIVERSAL Clamp Truck . . . it quickly pays a large share of its low cost in these economies.

By turning a dial — an operation as simple as tuning in your radio — the new F. M. C. UNIVERSAL can be shifted from field crates to 4-5 bu. packed boxes—or any size box between—without a minute's delay. Easier to handle because load is always centered over rubber-tired roller-bearing wheels.

Write for folder giving complete specifications. Orders now being filled for immediate or future delivery. Settle the trucking question in packing houses before the fall rush begins. Address:

UNIVERSAL
PATENTS PENDING
CLAMP TRUCK

FOOD MACHINERY CORPORATION

FLORIDA DIVISION
DUNEDIN, FLORIDA